

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	James Stewart McCormick, et al.
	:	
For	:	METHOD AND APPARATUS FOR
	:	NETWORK ELEMENT RESOURCE
	:	UTILIZATION TRACKING
	:	
Serial No.	:	10/670,257
	:	
Filed	:	September 26, 2003
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Art Unit	:	2478
	:	
Examiner	:	Scott M. Sciacca
	:	
Att. Docket	:	ALC 3408
	:	
Confirmation No.	:	4907

APPEAL BRIEF

Mail Stop Appeal Brief Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed herewith.

I. REAL PARTY IN INTEREST

The party in interest is Alcatel, by way of an Assignment recorded at Reel 014553, frame 0007.

II. RELATED APPEALS AND INTERFERENCES

Following are identified any prior or pending appeals, interferences or judicial proceedings, known to Appellant, Appellant's representative, or the Assignee, that may be related to, or which will directly affect or be directly affected by or have a bearing upon the Board's decision in the pending appeal:

NONE.

III. STATUS OF CLAIMS

Claims 1-4, 6-20, 22-34, 36-39, and 41-46 are on appeal.

Claims 1-4, 6-20, 22-34, 36-39, and 41-46 are pending.

Claims 5, 21, 35, and 40 are canceled.

No claims are withdrawn.

No claims are allowed.

Claims 1-4, 6-20, 22-34, 36-39, and 41-46 are rejected.

Application No: 10/670,257
Attorney Docket No: ALC 3408

IV. STATUS OF AMENDMENTS

All amendments have been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following summary refers to the specification of the present application by paragraph numbers and line numbers.

The subject matter recited in independent claim 1 includes: "A method of monitoring and diagnosing resource utilization within a connection oriented network made of network elements (Fig. 1: 10, paragraph [0018], line 3), at least one of said network elements (Fig. 1: 10, paragraph [0018], line 3) including a connection resource tracker (Fig. 2: 32, paragraph [0020], line 4) for maintaining a database of resource utilization, the method comprising the steps of: specifying a plurality of resource types for the network elements (Fig. 1: 10, paragraph [0018], line 3) of the connection oriented network, each resource type being defined by a capacity limit and a utilization (paragraph [0019], line 10); providing a utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and a specified threshold (paragraph [0029], line 7) for each specified type of resource, wherein the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold (paragraph [0029], line 7) is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit; monitoring for receipt of call connection establishment signals (Fig. 2: 36, paragraph [0014], line 3); measuring the utilization for all resources at the network elements (Fig. 1: 10, paragraph [0018], line 3); in response to a query from a user

relating to a particular type of resource, comparing the utilization for all resources of the particular type as measured in the measuring step with the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold (Fig. 3: 54, paragraph [0025], lines 1-3); if the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and presenting (Fig. 3: 58, paragraph [0018], last two lines) the report to an operator of said connection oriented network; and if the utilization is above the corresponding specified threshold (paragraph [0029], line 7) for at least one said resource, checking a timer (paragraph [0030], line 20) associated with the resource; and when the timer (paragraph [0030], line 20) has expired, generating an alarm for the resource and resetting the timer (paragraph [0030], line 20) associated with the resource only when the alarm has been generated for the resource."

The subject matter recited in independent claim 17 includes: "A processor for monitoring resource utilization within a connection oriented network made of network elements (Fig. 1: 10, paragraph [0018], line 3), at least one of said network elements (Fig. 1: 10, paragraph [0018], line 3) including a connection resource tracker (Fig. 2: 32,

paragraph [0020], line 4) for maintaining a database of resource utilization, the processor comprising: instructions for specifying a plurality of resource types for the network elements (Fig. 1: 10, paragraph [0018], line 3) of the connection oriented network, each resource type being defined by a capacity limit and a utilization (paragraph [0019], line 10); instructions for providing a utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and a specified threshold (paragraph [0029], line 7) for each specified type of resource, wherein the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold (paragraph [0029], line 7) is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit; instructions for measuring the utilization for all resources at the network elements (Fig. 1: 10, paragraph [0018], line 3); instructions for monitoring for receipt of call connection establishment signals (Fig. 2: 36, paragraph [0014], line 3); instructions for, in response to a query from a user relating to a particular type of resource in said database, comparing the measured utilization for all resources of the particular type with the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold (Fig. 3: 54, paragraph [0025], lines 1-3); instructions for, if the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for at least one said

resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and presenting (Fig. 3: 58, paragraph [0018], last two lines) the report to an operator of said connection oriented network; and instructions for, if the utilization is above the corresponding specified threshold (paragraph [0029], line 7) for at least one said resource, checking a timer (paragraph [0030], line 20) associated with the resource; instructions for, when the timer (paragraph [0030], line 20) associated with the resource has expired, generating an alarm for the resource and resetting the timer (paragraph [0030], line 20) associated with the resource only when the alarm has been generated for the resource.”

The subject matter recited in independent claim 33 includes: “a computer-readable medium comprising instructions for monitoring resource utilization within a connection oriented network made of network connections, at least one of said network elements including a connection resource tracker (Fig. 2: 32, paragraph [0020], line 4) for maintaining a database of resource utilization, the computer-readable medium comprising: instructions for specifying a plurality of resource types for the network elements (Fig. 1: 10, paragraph [0018], line 3) of the connection oriented network, each resource type being defined by a capacity limit and a utilization (paragraph [0019], line 10); instructions for providing a utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and a specified threshold (paragraph [0029], line 7) for each specified type of

resource, wherein the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold (paragraph [0029], line 7) is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit; instructions for measuring the utilization for all resources at a network element (Fig. 1: 10, paragraph [0018], line 3); instructions for monitoring for receipt of call connection establishment signals (Fig. 2: 36, paragraph [0014], line 3); instructions for, in response to a query from a user relating to a particular type of resource in said database, comparing the measured utilization for all resources of the particular type with the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold (Fig. 3: 54, paragraph [0025], lines 1-3); instructions for, if the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and presenting (Fig. 3: 58, paragraph [0018], last two lines) the report to an operator of said connection oriented network; and instructions for, if the utilization is above the corresponding specified threshold (paragraph [0029], line 7) for at least one said resource, checking a timer (paragraph [0030], line 20) associated with the resource; and

instructions for, when the timer (paragraph [0030], line 20) has expired, generating an alarm for the resource and resetting the timer (paragraph [0030], line 20) associated with the resource only when the alarm has been generated for the resource.”

The subject matter recited in independent claim 34 includes: “A method of monitoring resource utilization within a connection oriented network made of network elements (Fig. 1: 10, paragraph [0018], line 3), at least one of said network elements (Fig. 1: 10, paragraph [0018], line 3) including a connection resource tracker (Fig. 2: 32, paragraph [0020], line 4) for maintaining a database of resource utilization, the method comprising the steps of: specifying a plurality of resource types for the network elements (Fig. 1: 10, paragraph [0018], line 3) of the connection oriented network, each resource type being defined by a capacity limit and a utilization (paragraph [0019], line 10); providing a utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and a specified threshold (paragraph [0029], line 7) for each specified type of resource, wherein the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold (paragraph [0029], line 7) is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit; monitoring for receipt of call connection establishment signals (Fig. 2: 36, paragraph [0014], line 3); measuring the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for all resources at a network element (Fig. 1: 10, paragraph [0018], line 3); in

response to a query from a user relating to a particular type of resource in said database, comparing the utilization for all resources of the particular type as measured in the measuring step with the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold (Fig. 3: 54, paragraph [0025], lines 1-3); if the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and presenting (Fig. 3: 58, paragraph [0018], last two lines) the report to an operator of said connection oriented network; and if the utilization is above the corresponding specified threshold (paragraph [0029], line 7) for at least one said resource, checking whether a flag (paragraph [0032], last line) associated with the resource indicates that an alarm has recently been generated for the resource and, if the flag (paragraph [0032], last line) does not indicate that the alarm has recently been generated, generating (Fig. 4: 76, paragraph [0020], line 8) the alarm and setting the flag (paragraph [0032], last line) to indicate that the alarm has recently been generated.”

The subject matter recited in independent claim 39 includes: “A processor for monitoring resource utilization within a connection oriented network made of network

elements (Fig. 1: 10, paragraph [0018], line 3), at least one of said network elements (Fig. 1: 10, paragraph [0018], line 3) including a connection resource tracker (Fig. 2: 32, paragraph [0020], line 4) for maintaining a database of resource utilization, the processor comprising: instructions for specifying a plurality of resource types for the network elements (Fig. 1: 10, paragraph [0018], line 3) of the connection oriented network, each resource type being defined by a capacity limit and a utilization (paragraph [0019], line 10); instructions for providing a utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and a specified threshold (paragraph [0029], line 7) for each specified type of resource, wherein the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) is set at a threshold value to determine whether resources are being over-utilized and the specified threshold (paragraph [0029], line 7) is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit (Fig. 3: 54, paragraph [0025], lines 1-3); instructions for measuring the utilization for all resources at the network element; instructions for monitoring for receipt of call connection establishment signals (Fig. 2: 36, paragraph [0014], line 3); instructions for, in response to a query from a user relating to a particular type of resource in said database, comparing the measured utilization for all resources of the particular type with the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10);

instructions for, if the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and presenting the report to an operator of said connection oriented network; and instructions for, if the utilization is above the corresponding specified threshold (paragraph [0029], line 7) for at least one said resource, checking whether a flag (paragraph [0032], last line) associated with the resource indicates that an alarm has recently been generated for the resource, and if the flag (paragraph [0032], last line) does not indicate that the alarm has recently been generated, generating (Fig. 4: 76, paragraph [0020], line 8) the alarm and setting the flag (paragraph [0032], last line) to indicate that the alarm has recently been generated.”

The subject matter recited in independent claim 44 includes: “A computer-readable medium comprising instructions for monitoring resource utilization within a connection oriented network made of network elements (Fig. 1: 10, paragraph [0018], line 3), at least one of said network elements (Fig. 1: 10, paragraph [0018], line 3) including a connection resource tracker (Fig. 2: 32, paragraph [0020], line 4) for maintaining a database of resource utilization, the computer-readable medium comprising: instructions for specifying a plurality of resource types for the network elements (Fig. 1: 10, paragraph [0018], line 3) of the connection oriented network, each

resource type being defined by a capacity limit and a utilization (paragraph [0019], line 10); instructions for providing a utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and a specified threshold (paragraph [0029], line 7) for each specified type of resource, wherein the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold (paragraph [0029], line 7) is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit; instructions for measuring the utilization for all resources at the network element (Fig. 1: 10, paragraph [0018], line 3); instructions for monitoring for receipt of call connection establishment signals (Fig. 2: 36, paragraph [0014], line 3); instructions for, in response to a query from a user relating to a particular type of resource in said database, comparing the measured utilization for all resources of the particular type with the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold (Fig. 3: 54, paragraph [0025], lines 1-3); instructions for, if the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and presenting the report to an operator of said connection oriented network; and

instructions for, if the utilization is above the corresponding specified threshold (paragraph [0029], line 7) for at least one said resource, checking whether a flag (paragraph [0032], last line) associated with the resource indicates that an alarm has recently been generated for the resource and if the flag (paragraph [0032], last line) does not indicate that the alarm has recently been generated, generating (Fig. 4: 76, paragraph [0020], line 8) the alarm and setting the flag (paragraph [0032], last line) to indicate that the alarm has recently been generated.”

The subject matter recited in independent claim 45 includes: “A method of monitoring and diagnosing resource utilization within a connection oriented network made of network elements (Fig. 1: 10, paragraph [0018], line 3), at least one of said network elements (Fig. 1: 10, paragraph [0018], line 3) including a connection resource tracker (Fig. 2: 32, paragraph [0020], line 4) for maintaining a database of resource utilization, the method comprising the steps of: specifying a plurality of resource types for the network elements (Fig. 1: 10, paragraph [0018], line 3) of the connection oriented network, each resource type being defined by a capacity limit and a utilization (paragraph [0019], line 10); providing a utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and a specified threshold (paragraph [0029], line 7) for each specified type of resource, wherein the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) is set at a threshold value used to determine whether resources are being under-utilized and the specified threshold (paragraph [0029], line 7) is set at a threshold

value used to determine whether resources used are below a minimum allowable limit; monitoring for receipt of call connection establishment signals (Fig. 2: 36, paragraph [0014], line 3); measuring the utilization for all resources at the network elements (Fig. 1: 10, paragraph [0018], line 3); in response to a query from a user relating to a particular type of resource, comparing the utilization for all resources of the particular type as measured in the measuring step with the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for said particular type for determining whether the utilization of any resource of said particular type is below the corresponding utilization threshold (paragraph [0035], lines 3-7); if the utilization is below the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is below the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and presenting the report to an operator of said connection oriented network; and if the utilization is below the corresponding specified threshold (paragraph [0029], line 7) for at least one said resource, checking a timer (paragraph [0030], line 20) associated with the resource; and when the timer (paragraph [0030], line 20) has expired, generating (Fig. 4: 76, paragraph [0020], line 8) an alarm for the resource and resetting the timer (paragraph [0030], line 20) associated with the resource only when the alarm has been generated for the resource."

The subject matter recited in independent claim 46 includes: "A method of monitoring resource utilization within a connection oriented network made of network elements (Fig. 1: 10, paragraph [0018], line 3), at least one of said network elements (Fig. 1: 10, paragraph [0018], line 3) including a connection resource tracker (Fig. 2: 32, paragraph [0020], line 4) for maintaining a database of resource utilization, the method comprising the steps of: specifying a plurality of resource types for the network elements (Fig. 1: 10, paragraph [0018], line 3) of the connection oriented network, each resource type being defined by a capacity limit and a utilization (paragraph [0019], line 10); providing a utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and a specified threshold (paragraph [0029], line 7) for each specified type of resource, wherein the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) is set at a threshold value used to determine whether resources are being under-utilized and the specified threshold (paragraph [0029], line 7) is set at a threshold value used to determine whether resources used are below a minimum allowable limit; monitoring for receipt of call connection establishment signals (Fig. 2: 36, paragraph [0014], line 3); measuring the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for all resources at a network element (Fig. 1: 10, paragraph [0018], line 3); in response to a query from a user relating to a particular type of resource in said database, comparing the utilization for all resources of the particular type as measured in the measuring step with the utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for said

particular type for determining whether the utilization of any resource of said particular type is below the corresponding utilization threshold (paragraph [0035], lines 3-7); if the utilization is below the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is below the corresponding utilization threshold (Fig. 4: 51, paragraph [0026], line 10) and presenting the report to an operator of said connection oriented network; and if the utilization is below the corresponding specified threshold (paragraph [0029], line 7) for at least one said resource, checking whether a flag (paragraph [0032], last line) associated with the resource indicates that an alarm has recently been generated for the resource, and, if the flag (paragraph [0032], last line) does not indicate that the alarm has recently been set, generating (Fig. 4: 76, paragraph [0020], line 8) the alarm and setting the flag (paragraph [0032], last line) to indicate that the alarm has recently been generated.”

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are presented for review:

A. On pages 2-13, the Office Action rejects claims 1-4, 6-20, 22-34, 36-39, and 41-46 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,673,253 to Shaffer ("Shaffer") in view of U.S. Patent No. 7,143,153 to Black et al ("Black"), further in view of U.S. Patent No. 5,223,827 to Bell et al ("Bell").

VII. ARGUMENT

A. On pages 2-13, the Office Action rejects claims 1-4, 6-20, 22-34, 36-39, and 41-46 under 35 U.S.C. § 103(a) as allegedly unpatentable over Shaffer in view of Black, further in view of Bell.

1. Independent Claims 1, 17, 33, 34, 39, 44, and 46

Independent claim 1 recites: “providing a utilization threshold and a specified threshold for each specified type of resource” (emphasis added). Similar subject matter appears in independent claims 17, 33, 34, 39, 44, and 46. Appellant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 4, the Office Action alleges that Shaffer provides this subject matter, relying upon col. 6, lines 32-36 of Shaffer. However, Shaffer does not actually provide two thresholds for each type of resource. Instead, Shaffer actually discloses that “there may be a different threshold for line shelf utilization than for switching fabric utilization.” See lines 24-25 of col. 6 in Shaffer. The line shelf threshold value is 98% while the switching fabric threshold value is 95%. See lines 34-35 of col. 6. Thus, Appellant respectfully submits that Shaffer actually teaches different values for thresholds, not the use of a two thresholds for each type of resource.

Independent claim 1 also recites: “wherein the utilization threshold is set at a threshold value used to determine whether resources are being over-utilized and the

specified threshold is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit” (emphasis added). Similar subject matter appears in independent claims 17, 33, 34, 39, 44, and 46. Appellant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 4, the Office Action alleges that Shaffer provides this subject matter, again relying upon col. 6, lines 32-36 of Shaffer. In response, as described above, Shaffer provides for different threshold values, not the use of a two thresholds for each type of resource. Appellant respectfully submits that Shaffer is silent regarding use of two thresholds for both the “line shelf” and “switching fabric” cases.

The cited example of “bandwidth restoration” is not germane because it is not related to a type of resource. Instead, Shaffer presents “bandwidth reduction” and “bandwidth restoration” as opposite operations. Consequently, Shaffer fails to teach the use of both utilization and specified thresholds for each resource.

Independent claim 1 also recites: “if the utilization is above the corresponding utilization threshold for at least one said resource, generating a report” (emphasis added). Similar subject matter appears in independent claims 17, 33, 34, 39, 44, and 46. Appellant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 5, the Office Action correctly concedes that Shaffer fails to provide this

subject matter. To remedy this admitted deficiency, the Office Action then applies Black's teachings, relying upon col. 173 of Black. In response, Appellant respectfully submits that Black's teachings are inapplicable to Shaffer because Shaffer does not provide the recited utilization threshold for each resource.

Independent claim 1 also recites: "if the utilization is above the corresponding specified threshold . . . checking a timer" (emphasis added). Similar subject matter appears in independent claims 17 and 33. Appellant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 6, the Office Action correctly concedes that Shaffer fails to provide this subject matter. To remedy this admitted deficiency, the Office Action then applies Bell's teachings. In response, Appellant respectfully submits that Bell's teachings are inapplicable to Shaffer because Shaffer fails to provide both utilization and specified thresholds for each resource. Consequently, any of Bell's teachings regarding a timer would not apply to the situation of exceeding both utilization and specified thresholds.

2. Independent Claims 34, 39, 44, and 46

Independent claim 34 recites, in part: "checking whether a flag associated with the resource indicates that an alarm has recently been generated for the resource; and wherein if the flag does not indicate that the alarm has recently been set, a step of generating the alarm is carried out and the flag is set to indicate that the alarm has

recently been generated.” Similar subject matter appears in independent claims 39, 44, and 46. Appellant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 13, the Office Action indicates that claims 17-20, 22-34, 36-39, and 41-46 are rejected for “similar reasons as stated above.” In response, Appellant respectfully submits that independent claims 34, 39, 44, and 46 relate to use of a **flag** to avoid repeated generation of alarms, rather than the timer recited in claims 1, 17, and 33. Because the Office Action fails to provide any articulated reasoning regarding obviousness of claims reciting a flag, Appellant respectfully submits that these rejections are clearly erroneous.

For the reasons listed above, Appellant respectfully submits that independent claims 1, 17, 33, 34, 39, 44, and 46 are allowable over the references of record.

3. Dependent Claims 2-4, 6-16, 18-20, 22-32, 36-38, 41, and 42

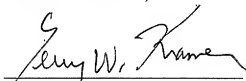
Claims 2-4 and 6-16 depend from claim 1. Claims 18-20 and 22-32 depend from claim 17. Claims 36-38 depend from claim 34. Claims 41 and 42 depend from claim 39. Thus, claims 2-4, 6-16, 18-20, 22-32, 36-38, 41, and 42 are allowable at least due to their respective dependencies from allowable claims.

Accordingly, Appellant respectfully requests withdrawal of the rejections of claims 1-4, 6-20, 22-34, 36-39, and 41-46 under 35 U.S.C. § 103(a).

CONCLUSION

For at least the reasons discussed above, Appellant respectfully submits that the rejections are in error and that claims 1-4, 6-20, 22-34, 36-39, and 41-46 are in condition for allowance. Therefore, Appellant respectfully requests that this Honorable Board reverse the rejections of claims 1-4, 6-20, 22-34, 36-39, and 41-46.

Respectfully submitted,
KRAMER & AMADO, P.C.

A handwritten signature in black ink, appearing to read "Terry W. Kramer", is written over a horizontal line.

Terry W. Kramer
Reg. No. 41,541

Date: April 15, 2011

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VIII. CLAIMS APPENDIX

CLAIMS INVOLVED IN THE APPEAL:

1. (Rejected) A method of monitoring and diagnosing resource utilization within a connection oriented network made of network elements, at least one of said network elements including a connection resource tracker for maintaining a database of resource utilization, the method comprising the steps of:

specifying a plurality of resource types for the network elements of the connection oriented network, each resource type being defined by a capacity limit and a utilization;

providing a utilization threshold and a specified threshold for each specified type of resource, wherein the utilization threshold is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit;

monitoring for receipt of call connection establishment signals;

measuring the utilization for all resources at the network elements;

in response to a query from a user relating to a particular type of resource, comparing the utilization for all resources of the particular type as measured in the measuring step with the utilization threshold for said particular type for determining

whether the utilization of any resource of said particular type is above the corresponding utilization threshold;

if the utilization is above the corresponding utilization threshold for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold and presenting the report to an operator of said connection oriented network; and

if the utilization is above the corresponding specified threshold for at least one said resource, checking a timer associated with the resource; and

when the timer has expired, generating an alarm for the resource and resetting the timer associated with the resource only when the alarm has been generated for the resource.

2. (Rejected) The method of claim 1, wherein the plurality of resource types includes at least one of bandwidth, line card capacity, number of connection end points per line card, Virtual Path Identifier numbers, Virtual Connection Identifier numbers, MultiProtocol Label Switching (MPLS) label numbers, memory within the switch, number of supportable leaf endpoints per system, number of supportable connections in a connecting state, number of MPLS state blocks, and number of connections in a database.

3. (Rejected) The method of claim 1, wherein the step of comparing the utilization for all resources is carried out only with respect to resources within a list of resources.

4. (Rejected) The method of claim 3, further comprising:

receiving at least one utilization threshold from the operator.

5. (Canceled).

6. (Rejected) The method of claim 1, wherein the step of generating the report further comprises:

receiving at least one utilization threshold from the operator.

7. (Rejected) The method of claim 1, wherein the step of generating the report further comprises:

including the utilization of any identified resources in the report.

8. (Rejected) The method of claim 7, wherein the step of specifying the plurality of resource types further comprises:

providing a list of resources, the list of resources including at least one of bandwidth, line card capacity, number of connection end points per line card, Virtual Path Identifier numbers, Virtual Connection Identifier numbers, MultiProtocol Label

Switching (MPLS) label numbers, memory within the switch, number of supportable leaf endpoints per system, number of supportable connections in a connecting state, number of MPLS state blocks, and number of connections in a database, the step of generating the report is carried out only with respect to resources within the list of resources, and further comprising:

receiving at least one utilization threshold from the operator.

9. (Rejected) The method of claim 1, further comprising the steps of:

upon identification of a resource for which the utilization is above the specified threshold, generating an alarm identifying the resource; and

presenting the alarm to the operator.

10. (Rejected) The method of claim 1, further comprising:

receiving at least one utilization threshold from the operator.

11. (Rejected) The method of claim 1, wherein the step of determining whether the utilization of the resource is above the corresponding utilization threshold and the step of identifying each such resource are carried out repeatedly.

12. (Rejected) The method of claim 1, further comprising:

a step of pausing after the step of identifying each resource for which the

utilization is above the corresponding utilization threshold.

13. (Rejected) The method of claim 1, further comprising:

wherein the step of determining whether the utilization of the resource is above the corresponding utilization threshold and the step of identifying each such resource are carried out only upon receipt of a call connection establishment signal.

14. (Rejected) The method of claim 13, further comprising:

determining whether the alarm has been generated since the utilization of the resource last rose above the specified threshold,

wherein the step of generating the alarm is carried out only if the alarm has not been generated since the utilization of the resource last rose above the specified threshold.

15. (Rejected) The method of claim 14, wherein the step of generating the report further comprises:

including the utilization of any identified resources in the report.

16. (Rejected) The method of claim 15, wherein the step of specifying the plurality of resource types further comprises:

providing a list of resources, the list of resources including at least one of

bandwidth, line card capacity, number of connection end points per line card, Virtual Path Identifier numbers, Virtual Connection Identifier numbers, MultiProtocol Label Switching (MPLS) label numbers, memory within the switch, number of supportable leaf endpoints per system, number of supportable connections in a connecting state, number of MPLS state blocks, and number of connections in a database, the step of determining whether the utilization of the resource is above the corresponding utilization threshold is carried out only with respect to resources within the list of resources, and further comprising:

receiving at least one utilization threshold from the operator.

17. (Rejected) A processor for monitoring resource utilization within a connection oriented network made of network elements, at least one of said network elements including a connection resource tracker for maintaining a database of resource utilization, the processor comprising:

instructions for specifying a plurality of resource types for the network elements of the connection oriented network, each resource type being defined by a capacity limit and a utilization;

instructions for providing a utilization threshold and a specified threshold for each specified type of resource, wherein the utilization threshold is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold is set at a threshold value used to determine whether resources used are

exceeding a maximum allowable limit;

instructions for measuring the utilization for all resources at the network elements;

instructions for monitoring for receipt of call connection establishment signals;

instructions for, in response to a query from a user relating to a particular type of resource in said database, comparing the measured utilization for all resources of the particular type with the utilization threshold for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold;

instructions for, if the utilization is above the corresponding utilization threshold for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold and presenting the report to an operator of said connection oriented network; and

instructions for, if the utilization is above the corresponding specified threshold for at least one said resource, checking a timer associated with the resource;

instructions for, when the timer associated with the resource has expired, generating an alarm for the resource and resetting the timer associated with the resource only when the alarm has been generated for the resource.

18. (Rejected) The processor of claim 17, wherein the plurality of resources includes at

least one of bandwidth, line card capacity, number of connection end points per line card, Virtual Path Identifier numbers, Virtual Connection Identifier numbers, MultiProtocol Label Switching (MPLS) label numbers, memory within the switch, number of supportable leaf endpoints per system, number of supportable connections in a connecting state, number of MPLS state blocks, and number of connections in a database.

19. (Rejected) The processor of claim 17, further comprising:

instructions for providing a list of resources, wherein the instructions for determining whether the utilization of the resource is above the corresponding utilization threshold make this determination only with respect to resources within the list of resources.

20. (Rejected) The processor of claim 19, further comprising:

instructions for receiving at least one utilization threshold from the operator.

21. (Canceled).

22. (Rejected) The processor of claim 17, further comprising:

instructions for receiving at least one utilization threshold from the operator.

23. (Rejected) The processor of claim 17, wherein the instructions for generating the report further comprise:

instructions for including the utilization of any identified resources in the report.

24. (Rejected) The processor of claim 23, further comprising:

instructions for providing a list of resources, the list of resources including at least one of bandwidth, line card capacity, number of connection end points per line card, Virtual Path Identifier numbers, Virtual Connection Identifier numbers, MultiProtocol Label Switching (MPLS) label numbers, memory within the switch, number of supportable leaf endpoints per system, number of supportable connections in a connecting state, number of MPLS state blocks, and number of connections in a database, wherein the instructions for determining whether the utilization of the resource is above the corresponding utilization threshold are executed only with respect to resources within the list of resources, and further comprising:

instructions for receiving at least one utilization threshold from the operator.

25. (Rejected) The processor of claim 17, further comprising:

instructions for, upon identification of a resource for which the utilization is above the specified threshold, generating an alarm identifying the resource; and

instructions for presenting the alarm to the operator.

26. (Rejected) The processor of claim 25, further comprising:

instructions for receiving at least one utilization threshold from the operator.

27. (Rejected) The processor of claim 25, further comprising:

instructions for executing the instructions for determining whether the utilization of the resource is above the corresponding utilization threshold and the instructions for identifying each such resource repeatedly.

28. (Rejected) The processor of claim 27, further comprising:

instructions for pausing after the instructions for identifying each resource for which the utilization is above the corresponding utilization threshold are executed.

29. (Rejected) The processor of claim 25, further comprising:

instructions for monitoring for receipt of call connection establishment signals;
and

instructions for executing the instructions for determining whether the utilization of the resource is above the corresponding utilization threshold and the instructions for identifying each such resource upon receipt of a call connection establishment signal.

30. (Rejected) The processor of claim 29, further comprising:

instructions for determining whether the alarm has been generated since the utilization of the resource last rose above the corresponding specified threshold; and

instructions for executing the instructions for generating the alarm only in the event that the alarm has not been generated since the utilization of the resource last rose above the corresponding specified threshold.

31. (Rejected) The processor of claim 30, wherein the instructions for generating the report further comprise:

instructions for including the utilization of any identified resources in the report.

32. (Rejected) The processor of claim 31, further comprising:

instructions for providing a list of resources, the list of resources including at least one of bandwidth, line card capacity, number of connection end points per line card, Virtual Path Identifier numbers, Virtual Connection Identifier numbers, MultiProtocol Label Switching (MPLS) label numbers, memory within the switch, number of supportable leaf endpoints per system, number of supportable connections in a connecting state, number of MPLS state blocks, and number of connections in a database; wherein the instructions for determining whether the utilization of the resource is above the corresponding utilization threshold are executed only with respect to resources within the list of resources, and further comprising:

instructions for receiving at least one utilization threshold from the operator.

33. (Rejected) A computer-readable medium comprising instructions for monitoring resource utilization within a connection oriented network made of network connections, at least one of said network elements including a connection resource tracker for maintaining a database of resource utilization, the computer-readable medium comprising:

instructions for specifying a plurality of resource types for the network elements of the connection oriented network, each resource type being defined by a capacity limit and a utilization;

instructions for providing a utilization threshold and a specified threshold for each specified type of resource, wherein the utilization threshold is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit;

instructions for measuring the utilization for all resources at a network element;

instructions for monitoring for receipt of call connection establishment signals;

instructions for, in response to a query from a user relating to a particular type of resource in said database, comparing the measured utilization for all resources of the particular type with the utilization threshold for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold;

instructions for, if the utilization is above the corresponding utilization threshold for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold and presenting the report to an operator of said connection oriented network; and

instructions for, if the utilization is above the corresponding specified threshold for at least one said resource, checking a timer associated with the resource; and

instructions for, when the timer has expired, generating an alarm for the resource and resetting the timer associated with the resource only when the alarm has been generated for the resource.

34. (Rejected) A method of monitoring resource utilization within a connection oriented network made of network elements, at least one of said network element including a connection resource tracker for maintaining a database of resource utilization, the method comprising the steps of:

specifying a plurality of resource types for the network elements of the connection oriented network, each resource type being defined by a capacity limit and a utilization;

providing a utilization threshold and a specified threshold for each specified type of resource, wherein the utilization threshold is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold is set

at a threshold value used to determine whether resources used are exceeding a maximum allowable limit;

monitoring for receipt of call connection establishment signals;

measuring the utilization threshold for all resources at a network element;

in response to a query from a user relating to a particular type of resource in said database, comparing the utilization for all resources of the particular type as measured in the measuring step with the utilization threshold for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold;

if the utilization is above the corresponding utilization threshold for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold and presenting the report to an operator of said connection oriented network; and

if the utilization is above the corresponding specified threshold for at least one said resource, checking whether a flag associated with the resource indicates that an alarm has recently been generated for the resource and, if the flag does not indicate that the alarm has recently been generated, generating the alarm and setting the flag to indicate that the alarm has recently been generated.

36. (Rejected) The method of claim 34, further comprising:

receiving at least one utilization threshold from the operator.

37. (Rejected) The method of claim 36, further comprising:

the step of providing a list of resources, wherein the step of determining whether the utilization of the resource is below the corresponding utilization threshold is carried out only with respect to resources within the list of resources.

38. (Rejected) The method of claim 37, wherein the step of generating the report further comprises:

including the utilization of any identified resources in the report.

39. (Rejected) A processor for monitoring resource utilization within a connection oriented network made of network elements, at least one of said network elements including a connection resource tracker for maintaining a database of resource utilization, the processor comprising:

instructions for specifying a plurality of resource types for the network elements of the connection oriented network, each resource type being defined by a capacity limit and a utilization;

instructions for providing a utilization threshold and a specified threshold for

each specified type of resource, wherein the utilization threshold is set at a threshold value to determine whether resources are being over-utilized and the specified threshold is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit;

instructions for measuring the utilization for all resources at the network element;

instructions for monitoring for receipt of call connection establishment signals;

instructions for, in response to a query from a user relating to a particular type of resource in said database, comparing the measured utilization for all resources of the particular type with the utilization threshold for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold;

instructions for, if the utilization is above the corresponding utilization threshold for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold and presenting the report to an operator of said connection oriented network; and

instructions for, if the utilization is above the corresponding specified threshold for at least one said resource, checking whether a flag associated with the resource indicates that an alarm has recently been generated for the resource, and if the flag does not indicate that the alarm has recently been generated, generating the alarm

and setting the flag to indicate that the alarm has recently been generated.

40. (Canceled).

41. (Rejected) The processor of claim 39, further comprising:

instructions for receiving at least one utilization threshold from the operator.

42. (Rejected) The processor of claim 41, further comprising:

instructions for providing a list of resources, wherein the instructions for determining whether the utilization of the resource is below the corresponding utilization threshold are executed only with respect to resources within the list of resources.

43. (Rejected) The processor of claim 42, wherein the instructions for generating the report further comprise:

instructions for including the utilization of any identified resources in the report.

44. (Rejected) A computer-readable medium comprising instructions for monitoring resource utilization within a connection oriented network made of network elements, at least one of said network elements including a connection resource tracker for maintaining a database of resource utilization, the computer-readable medium

comprising:

instructions for specifying a plurality of resource types for the network elements of the connection oriented network, each resource type being defined by a capacity limit and a utilization;

instructions for providing a utilization threshold and a specified threshold for each specified type of resource, wherein the utilization threshold is set at a threshold value used to determine whether resources are being over-utilized and the specified threshold is set at a threshold value used to determine whether resources used are exceeding a maximum allowable limit;

instructions for measuring the utilization for all resources at the network element;

instructions for monitoring for receipt of call connection establishment signals;

instructions for, in response to a query from a user relating to a particular type of resource in said database, comparing the measured utilization for all resources of the particular type with the utilization threshold for said particular type for determining whether the utilization of any resource of said particular type is above the corresponding utilization threshold;

instructions for, if the utilization is above the corresponding utilization threshold for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is above the corresponding utilization threshold and presenting the report to an operator of said

connection oriented network; and

instructions for, if the utilization is above the corresponding specified threshold for at least one said resource, checking whether a flag associated with the resource indicates that an alarm has recently been generated for the resource and if the flag does not indicate that the alarm has recently been generated, generating the alarm and setting the flag to indicate that the alarm has recently been generated.

45. (Rejected) A method of monitoring and diagnosing resource utilization within a connection oriented network made of network elements, at least one of said network elements including a connection resource tracker for maintaining a database of resource utilization, the method comprising the steps of:

specifying a plurality of resource types for the network elements of the connection oriented network, each resource type being defined by a capacity limit and a utilization;

providing a utilization threshold and a specified threshold for each specified type of resource, wherein the utilization threshold is set at a threshold value used to determine whether resources are being under-utilized and the specified threshold is set at a threshold value used to determine whether resources used are below a minimum allowable limit;

monitoring for receipt of call connection establishment signals;

measuring the utilization for all resources at a network element;

in response to a query from a user relating to a particular type of resource, comparing the utilization for all resources of the particular type as measured in the measuring step with the utilization threshold for said particular type for determining whether the utilization of any resource of said particular type is below the corresponding utilization threshold;

if the utilization is below the corresponding utilization threshold for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is below the corresponding utilization threshold and presenting the report to an operator of said connection oriented network; and

if the utilization is below the corresponding specified threshold for at least one said resource, checking a timer associated with the resource; and

when the timer has expired, generating an alarm for the resource and resetting the timer associated with the resource only when the alarm has been generated for the resource.

46. (Rejected) A method of monitoring resource utilization within a connection oriented network made of network elements, at least one of said network element including a connection resource tracker for maintaining a database of resource utilization, the method comprising the steps of:

specifying a plurality of resource types for the network elements of the

connection oriented network, each resource type being defined by a capacity limit and a utilization;

providing a utilization threshold and a specified threshold for each specified type of resource, wherein the utilization threshold is set at a threshold value used to determine whether resources are being under-utilized and the specified threshold is set at a threshold value used to determine whether resources used are below a minimum allowable limit;

monitoring for receipt of call connection establishment signals;

measuring the utilization threshold for all resources at a network element;

in response to a query from a user relating to a particular type of resource in said database, comparing the utilization for all resources of the particular type as measured in the measuring step with the utilization threshold for said particular type for determining whether the utilization of any resource of said particular type is below the corresponding utilization threshold;

if the utilization is below the corresponding utilization threshold for at least one said resource, generating a report and identifying in the report each resource of the particular type for which the utilization is below the corresponding utilization threshold and presenting the report to an operator of said connection oriented network;
and

if the utilization is below the corresponding specified threshold for at least one said resource, checking whether a flag associated with the resource indicates that an

alarm has recently been generated for the resource, and, if the flag does not indicate that the alarm has recently been set, generating the alarm and setting the flag to indicate that the alarm has recently been generated.

IX. EVIDENCE APPENDIX

A copy of the following evidence 1) entered by the Examiner, including a statement setting forth where in the record the evidence was entered by the Examiner, 2) relied upon by the Appellant in the appeal, and/or 3) relied upon by the Examiner as to the grounds of rejection to be reviewed on appeal, is attached:

NONE.

X. RELATED PROCEEDINGS APPENDIX

Copies of relevant decisions in prior or pending appeals, interferences or judicial proceedings, known to Appellant, Appellant's representative, or the Assignee, that may be related to, or which will directly affect or be directly affected by or have a bearing upon the Board's decision in the pending appeal are attached:

NONE.